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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,390	06/26/2003	Tak M. Mak	884.833US1	8383

21186 7590 11/17/2005

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EXAMINER	
SIDDIQUI, SAQIB JAVAID	
ART UNIT	**PAPER NUMBER**
2138	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/608,390	MAK ET AL.	
	Examiner	Art Unit	
	Saqib J. Siddiqui	2138	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner for the Abstract contains extraneous information. &

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/27/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

The Oath filed June 6, 2003 complies with all the requirements set fort in MPEP 602 and therefore is accepted.

Drawings

The filed drawings are accepted.

Specification

The abstract of the disclosure is objected to because it contains extraneous information. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claim 10 is objected to because of the following informalities:

The phrase "a pseudo bus agent that" (line 3), does not fall within the structure of the claim. For the purpose of compact prosecution the examiner has omitted the phrase. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, and 3 are rejected under 35 U.S.C. 112, second paragraph.

Claim 2, and 3 recites the limitation "providing" in line 1. There is insufficient antecedent basis for this limitation in the claim. For the purpose of compact prosecution

it is presumed that the applicant intended to refer to loading test data as stated in claim 1 rather than "providing."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kundu et al. US 6,510,398 B1.

The applied reference has a common ***assignee*** with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claim 1:

Kundu et al. teaches a method, comprising acquiring test data from a testing device (Figure 1 # 110, column 3, lines 44-48), loading at least a portion of the test data to a cache onto a device under test (Figure 1 # 130, columns 3-4, lines 66-3),

processing the portion of the test data in the cache on the device under test (Figure 1 # 140, column 4, lines 4-6), and intercepting requests associated with other data falling outside of the cache by a pseudo bus agent to emulate a bus operation for an intercepted request (Figure 1 # 160, column 4, lines 7-12).

As per claim 2:

Kundu et al. teaches a method of claim wherein providing includes deterministically or randomly generating the pseudo-test data by the pseudo bus agent (Figure 1 # 110, column 3, lines 44-48).

As per claim 3:

Kundu et al. teaches a method wherein providing includes acquiring the pseudo test data by selecting a data source within the device under test (Figure 1 # 120, column 3, lines 50-55).

As per claim 4:

Kundu et al. teaches a method further comprising compressing results associated with the processing and the intercepting on the device under test (Figure 1 # 170, column 4, lines 24-27).

As per claim 5:

Kundu et al. teaches a method further providing the compressed results to the testing device by the device under test (Figure 1 # 175, column 4, lines 29-31).

As per claim 6:

Kundu et al. teaches a method wherein compressing includes representing the compressed results as a digital signature for the test data (Figure 1 # 170, column 4, lines 24-27).

As per claim 7:

Kundu et al. teaches a method, comprising sending test data to a device under test (Figure 1 # 130, columns 3-4, lines 66-3), receiving from the device under test a signature associated with results of the test data (Figure 1 # 175, column 4, lines 29-31), and validating the signature against an expected signature (Figure 1 # 180, column 4, lines 32-39).

As per claim 8:

Kundu et al. teaches a method further comprising using a pseudo bus agent, by the device under test, to emulate data traffic on a bus of the device under test when the test data is processed on the device under test (Figure 1 # 160, column 4, lines 7-15).

As per claim 9:

Kundu et al. teaches a method further comprising storing, by the device under test, at least a portion of the test data in a cache on the device under test (Figure 1 # 130, columns 3-4, lines 66-3).

As per claim 10:

Kundu et al. teaches a method wherein storing includes servicing requests, by the pseudo bus agent, for other data residing outside the cache by providing responses back to the cache (Figure 1 # 120, column 3, lines 50-65).

As per claim 11:

Kundu et al. teaches a method wherein receiving includes representing the signature as a compressed version of the results (Figure 1 # 175, column 4, lines 29-31).

As per claim 12:

Kundu et al. teaches a system, comprising a cache (Figure 2 # 270, column 5, lines 1-5), a pseudo bus agent (Figure 1 # 160, column 4, lines 7-22), and a processor for executing instructions associated with test data in the cache (Figure 1 # 140, column 4, lines 4-6), wherein the test data is received from a testing device and the pseudo bus agent emulates responses from a bus as if the responses had originated from the bus during the execution of the test data (Figure 1 # 160, column 4, lines 7-22).

As per claim 13:

Kundu et al. teaches a system wherein the pseudo bus agent generates deterministic or random data to emulate the responses from the bus (Figure 1 # 110, column 3, lines 42-47).

As per claim 14:

Kundu et al. teaches a system wherein the pseudo bus agent selects data from a variety of data sources to emulate the responses from the bus (Figure 1 # 160, column 4, lines 7-22).

As per claim 15:

Kundu et al. teaches a system wherein processor logic generates a signature for test data results (Figure 1 # 170, column 4, lines 23-30).

As per claim 16:

Kundu et al. teaches a system wherein the bus is in communication with the testing device (column 4, lines 66-3).

As per claim 17:

Kundu et al. teaches a system wherein the test data includes instruction data (Figure 1 # 120, column 3, lines 50-65).

As per claim 18:

Kundu et al. teaches a machine accessible medium having associated data (Figure 2 # 230, column 5, lines 11-16), which when accessed, results in a machine performing receiving a request for data on the bus (Figure 1 # 130, columns 3-4, lines 66-3) in order to service a cache of the machine (Figure 2 # 270, column 5, lines 1-5), generating pseudo data in response to the request (Figure 1 # 110, column 3, lines 43-47), and providing the pseudo data in the cache to satisfy the request (Figure 2 # 270, columns 5-6, lines 67-4).

As per claim 19:

Kundu et al. teaches a medium wherein the data further includes data, which when accessed, results in the machine performing acquiring the pseudo data from another resource of the machine (Figure 2 # 230, column 5, lines 10-15).

As per claim 20:

Kundu et al. teaches a medium wherein the data further includes data, which when accessed, results in the machine performing deterministically or randomly generating the pseudo data in the machine (Figure 2 # 240, column 5, lines 34-45).

As per claim 21:

Kundu et al. teaches a medium wherein the data further includes data, which when accessed, results in the machine performing representing the pseudo data as a return value associated with a write operation request (Figure 1 # 170, column 4, lines 23-30).

As per claim 22:

Kundu et al. teaches a medium wherein the data further includes data, which when accessed, results in the machine performing, representing the pseudo data in a format expected by the request having a pseudo data value that represents a deterministic or random data value associated with a read operation request (Figure 1 # 175, column 5, lines 29-32).

As per claim 23:

Kundu et al. teaches a medium wherein the data further includes data, which when accessed, results in the machine performing using the pseudo data to emulate a bus transaction over the bus (column 5, line 34-55).

As per claim 24:

Kundu et al. teaches an apparatus comprising a cache for a device under test (DUT) (Figure 2 # 270, column 5, lines 1-5), and a pseudo bus agent (PBA) (Figure 2 # 240, column 5, lines 35-48), wherein the cache houses instructions for testing the DUT and the PBA services requests generated by a number of executing instructions when bus transactions are needed (Figure 1 # 130, columns 3-4, lines 66-5), the PBA

services the requests by emulating the corresponding bus transactions and provides emulated results back to the cache (Figure 1 # 150, column 4, lines 4-6).

As per claim 25:

Kundu et al. teaches an apparatus wherein the emulated results are compressed into a signature (Figure 1 # 170, column 4, lines 24-30).

As per claim 26:

Kundu et al. teaches the apparatus wherein the DUT sends the signature to a tester when testing is complete for verification (Figure 2 # 250, column 5, lines 34-55).

Related Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional pertinent prior arts, US 6377065 B1, US 6294921 B1, US 6049901 A, and US 5930735 A mention the same pattern of circuit testing are included herein for Applicant's review.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saqib J. Siddiqui whose telephone number is (571) 272-6553. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Saqib Siddiqui
Art Unit 2138
10/27/2005

GUY LAMARRE
PRIMARY EXAMINER